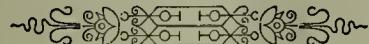


---

BOROUGH OF THORNABY-ON-TEES.



# Medical Officer's Annual Report,

*For the Year ended December 31st, 1898.*

---

BOROUGH OF THORNABY-ON-TEES

Medical Officer's Annual Report

*For the Year ended December 31st, 1898.*

GENTLEMEN,

In accordance with the requirements of the Local Government Board, it is again my duty to lay before you my Annual Report for the Borough of Thornaby-on-Tees for the year ended December 31st, 1898.

**Vital Statistics** During the year, 538 births (293 males and 245 females), and 243 deaths, (122 males and 121 females), were registered as having taken place in the Borough. The natural increase to the population by excess of births over deaths was, therefore, 295 for the year. Assuming the population to be 16,500, the birth-rate was 32.60, and the death-rate 14.72 per 1000. In the following table, the total births, the deaths at various ages, and the increase to the population, are recorded for the past ten years.

TABLE I.

Years	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	Total
Total Births	644	633	681	589	640	552	530	556	564	538	5927
Total Deaths at Specified Ages.											
Under 1 Year	113	109	124	95	101	84	95	89	95	93	998
1 and under 5	63	70	79	42	47	48	66	59	38	31	543
5 , , 15	20	30	21	6	16	16	19	6	6	4	144
15 , , 25	13	27	18	11	8	21	12	12	14	12	148
25 , , 65	58	86	90	67	68	79	67	66	81	76	738
65 and upwards	19	29	31	16	35	35	23	23	33	27	271
Total Deaths	286	351	363	237	275	283	282	255	267	243	2842
Natural Increase	358	282	318	352	365	269	248	301	297	295	3085

The excess of births over deaths in the last ten years 3085, added to the census of 1891, would bring the present population up to the figure of 18,722 but population is a fluctuating migratory element in a working community, and perhaps we are not far wrong in estimating the total number at 16,500. It will be noted that in the past ten

years, 1541 died under five years of age, and 1301 above five years of age; *i.e.*, 240 more died under than above five years of age. The total mortality in 1898 was the lowest of any of the ten years tabulated, except 1892, when it was six less.

**Causes of Mortality.** The causes of mortality in 1898 were certified as follows:—enteric fever 6, small-pox 1, whooping cough 1, diarrhoea 21, influenza 1, cerebral diseases, including convulsions 47, bronchitis and pneumonia 39, phthisis 21, heart disease 17, cancer 8, atrophy and debility 19, premature birth 8, inquests 11, and all other causes 43—total 243. Of the total deaths, 61 occurred in the first quarter of the year, 46 in the second, 66 in the third, and 70 in the last.

**Zymotic Diseases.** In 1898, 30 deaths were, therefore, due to zymotic diseases, if we include diarrhoea as of that type, but, if we exclude diarrhoea, which was never of an epidemic character throughout the year, only nine deaths can be ascribed to zymotic causes. Including diarrhoea, the zymotic death-rate was 1.81 per 1000; excluding diarrhoea, it was .54 per 1000. The following table gives a comparative statement of the total deaths from zymotic causes, the zymotic death-rate, the ordinary death-rates, and the total death-rates from all causes for each of the last ten years.

TABLE II.

Years	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
Zymotic Mortality	66	99	76	22	40	35	69	46	36	30
Zymotic Death-Rate per 1000	4.4	6.1	4.75	1.37	2.5	2.1	4.3	2.8	2.18	1.81
Ordinary Death-Rate	14.66	15.8	17.93	13.44	14.6	15.5	13.3	13.1	14	12.91
Total Death-Rate from all causes	19.06	21.9	22.68	14.81	17.1	17.6	17.6	15.9	16.18	14.72

It will be noted from the fore-going table that the zymotic death-rate in 1898 was the lowest of the ten years, except 1892, that the death-rate from ordinary causes was the lowest of all the ten years; and that the total death-rate from *all* causes was in 1898 even lower than the hitherto phenomenal year 1892.

**Number of Notifications.** 120 cases of infectious disease were notified in 1898, as against 68 in 1897, 172 in 1896, 198 in 1895, 297 in 1894, 119 in 1893, and 70 in 1892. Of these 15 were notified small-pox, 42 scarlet fever, 2 diphtheria, 44 enteric fever, 1 puerperal fever and 16 erysipelas—total 120.

## SMALL-POX CASES.

Residence	Age	Admitted to Hospital    Discharged		
		Years	1898.	1898.
1 A.A. 4, Prince St.	9	Unvaccinated	21 Jan.	24 March
2 J.H. 8, do.	23	Vaccinated	16 Feb.	16 March
3 M.H. 8, do.	22	do.	16 Feb.	16 March
4 S.H. 61, York St.	48	do.	18 Feb.	29 March
5 J.B. 2, Victor St.	8	do.	27 Feb.	29 March
6 J.B. 21, Reed St.	32	Unvaccinated	13 March	26 April
7 R.H. 18, North St.	19	do.	21 March	24 May
8 F.H. 16, Derby Terrace,	23	do.	21 March	24 May
9 W.B. 14, Hartington St.	54	Vaccinated	22 March	29 April
10 M.F. 20, Teesdale St.	21	Unvaccinated	27 Mar. Died	28 March
				Discharged
11 H.B. 17, Darlington St.	29	Vaccinated	9 April	6 May
12 J.O. 78, Trafalgar St.	23	do.	11 April	28 May
13 M.A.G. 27, Pioneer St.	26	do.	12 May	3 June
14 M.A.M. 4, Lyndhurst St.	27	do.	13 May	2 July
15 M.A.O'B. 2, Garden Place	47	do.	27 May	13 July

I am not in a position to state that the origin of the first case in the borough was ever discovered in spite of my best attention to the point, but the 2nd, 3rd, and 4th cases were directly connected by relationship and undoubtedly caught the infection from it. Between the incidence of the 1st, 2nd and 3rd cases, we were compelled to erect a wooden hospital beyond Thornaby village in a corner of a field well away from the Thornaby Road, and about two miles from the town. While this building was being prepared, a strict quarantine was kept up, day and night, over the 2nd and 3rd cases (a man and his wife) for about a week. No one was allowed to leave or enter the house and all necessary provisions were procured by corporation employees, till the hospital was opened on the 16th February. Two skilled nurses were procured, and a man and woman for the necessary adjuncts of hospital work. All of these were re-vaccinated as a preliminary precaution, with one exception—one of the nurses. None of the attendants took the disease. As a similar epidemic was most of the time raging in Middlesbro' and neighbourhood, perhaps one may rightly say, the origin of most of the cases was not far to seek. Thus the 7th case on the list was said to have worn at a football match the shirt of one who had taken small-pox and been removed to the Middlesbro' hospital. The 8th case was a prize-taker as a cyclist and had been frequently on runs through the infected area. The 9th case had actually worked as a joiner at the erection of the Middlesbro' small-pox blocks and caught the infection there. The 10th and only fatal case—one of the worst haemorrhagic type—had been a servant in a Middlesbro' hotel and came home to Thornaby on a cold wet day with the disease incubating upon her.

The 11th, 12th, 13th and 14th cases were more difficult to account for no traceable connection between the other cases or Middlesbro' being obtainable, though I have little doubt there was a nexus. The 15th and last case was the mother of the 13th case, and had been in close

attendance and even slept with her daughter, while the early symptoms were on. Curiously enough, the 6th case, a lodger in a house where there was a large family, had slept for a week in the same bed with another man, till the disease was out in the vesicular stage. The fellow-lodger and the rest of the household were re-vaccinated and never any of them took the disease, though when I saw him first of all, he was familiarly hob-nobbing with them all in the kitchen. The 7th and 12th cases were also taken from large families without any second case occurring in the same household.

In each case, the bed, bedding, and body clothes of the patients were burnt, and the houses or occupied room thoroughly fumigated, under the personal supervision of your Inspector of Nuisances, and, with the exceptions already indicated, with the most satisfactory results. None of the 15 cases had been re-vaccinated at any period of their lives and five had never been vaccinated at all either as adults or infants.

The lessons to be learnt from this outbreak are the value of re-vaccination as a preventative; of early isolation in a hospital; and of thoroughness in the process of cremation and disinfection. I may remark that now that the communication by electric tramways between the towns in this district has been effected, the question of the permanent provision of the necessary means of treatment of epidemics has become a matter of paramount importance, and, not until we are so permanently provided shall we be able to cope with any dangerous outbreak of disease. Had the present tramways been in existence at the period of the outbreak of small-pox, this community would have been face to face with a responsibility and an expense in life and money that I tremble to think of.

**Scarlet Fever.** 42 cases of scarlet fever without a death occurred in 1898 as against 15 in 1897 with one death, 109 in 1896 with one death, 130 in 1895 with 6 deaths, 222 in 1894 with 7 deaths, 37 in 1893 with one death, and 37 in 1892 without a death. The cases in 1898 were mild in type and appeared in the early, middle, and later months of the year. In each case, the members of the infected family were kept from school attendance, till certificates of freedom from infection were granted by myself or the medical attendant. In each case also, the houses were disinfected by thorough fumigation with sulphurous acid, &c.

**Enteric Fever.** 44 cases of enteric fever occurred in 1898 with 6 deaths as against 33 in 1897 with 3 deaths, 38 in 1896 with 6 deaths, 44 in 1895 with 9 deaths, 41 in 1894 with 4 deaths, 52 in 1893 with 9 deaths, and 31 in 1892 with 4 deaths. 39 households in 31 streets were visited by this fever, and in five of these there were two cases in each house. The usual precautions (employed in this borough for years) were the provision of closed pans for the disinfection and early removal of the excreta, the special emptying and disinfection of all neighbouring ash pits, and the free provision and use of disinfectants.

Besides these, there is the investigation of any insinuatory discoverable causes such as blocking of drains, wet ashpits, badly paved yards, &c. I cannot say that I have traced any case, for instance, to the milk supply. The enteric microbe, like the poor, seems to be always amongst us, whether lurking in the food we eat, or in the fluids we drink or in the air we breathe. He appears to be practically endemic in the soil of the district, though it may be a medical heresy to say so in as many words. At all events, he has never been absent in my nineteen years' experience here. Whether we shall ever oust him out and out, the future must ultimately prove. With a pure water supply, with uncontaminated milk and wholesome food, with properly laid and ventilated drains, with sanitary pans and dust bins frequently removable as to contents, the problem ought not to be unsolvable, but hitherto, our efforts have not been entirely successful. I am pleased, however, to record that in increasing numbers as opportunity or necessity occurs the olden too large ashpits are being replaced by ash-pans, whose contents are removed every week instead of every month as in the former, and that all the new properties in the town are being provided with ash-pans instead of ashpits. This is a decided improvement and should be increasingly resorted to by owners of property with the less sanitary arrangements.

The mortality from cerebral diseases including convulsions was 47 as against 40 in 1897, from bronchitis and pneumonia 39 as against 47 in 1897, from phthisis 21 as against 24, from heart disease 17 as against 22 and from atrophy and debility 19 as against 19. Inquests were held on 11 deaths in 1898 as against 8 in 1897.

**Inspections.** During the whole year, general and particular inspections have been carried out by myself personally or along with your Inspector of Nuisances, and improvements have been made to the following purpose :—

Re-laying, cleaning and repairing of Drains	...	8
Discontinuance of keeping Fowls in yards	...	4
Repairing of Yard Walls and Floors	...	5
do.    Ashpits and Privies	...	9
Removal of deposited Nuisances	...	6
Remedying Overcrowding	...	1
Providing Water Supply	...	7
Repairing Ashpit Doors	...	12
do.    Urinal	...	1
do.    Paving	...	1
Stopping Boiling of Bones	...	1
Repairing Slating of Ashpit	...	12
Emptying Ashpits <i>specially</i>	...	128
do.    Sanitary Pans (Fever Cases)	...	41
Fumigating Houses	...	37
<b>TOTAL</b>	..	<b>273</b>

In addition to the above, the course of the beck round the boundary of the Race course, which was becoming stagnant and foul from vegetable overgrowths, has been thoroughly cleaned out for a distance of a mile and a quarter.

**Paving.** With a few exceptions still remaining, the streets and back streets are paved with scoriae bricks, and adequately gullied and channelled.

**Drainage.** The drainage of the town is conducted into the River Tees through trapped outfalls, and, unless in unusually high tides, should be rather free as the general trend of the town is towards the river.

**Scavenging.** The scavenging of the town is done by contract, and is satisfactorily carried out under the supervision and control of the Inspector. Very few complaints ever reach me on this score, as compared with my earlier experiences in the town. The town is now mapped out and done on a systematic plan every month, and, exceptionally, as before noted, oftener.

**Water Supply.** The water supply is abundant and obtained from the higher reaches of the Tees and its tributaries, and when the new filter beds are in full working order, it is hoped will be better still. I understand that shortly pipes will be introduced to the Thornaby Village houses which abut on the Thornaby Road, so that the inhabitants will not depend as hitherto by preference on well-water, but have the same source of supply as the rest of the town. No well-water is used for personal consumption in the town part of the Borough, the sole supply being that of the Stockton and Middlesbrough Water Board. Most of the houses are provided with independent water-taps.

**Slaughter-Houses.** The Slaughter-houses are licensed from year to year, and have been inspected from time to time during the year and found in a general satisfactory condition of cleanliness.

**Milk-Shops.** The Milk shops which are all registered have also been cleanly kept. Only a few dairies exist in the town itself—the milk supplies coming from outside the Borough mostly.

**Food and Drugs Act.** No action has required to be taken during the year with regard to foods, &c. "unfit for the use of man," though of 16 samples of Milk taken, 5 venders were cautioned on account of the results of analysis.

In conclusion, I believe that the Borough is, as a whole, in a good sanitary condition, and not incapable of further improvement on the lines indicated in this and previous Annual Reports.

I am, Yours faithfully,

**THOMAS WATSON, M.D.,**

*Thornaby-on-Tees,*

*Medical Officer of Health.*

*7th February, 1899.*



THORNABY-ON-TEES :

Printed by D. MACKENZIE, 54, Mandale Road.